

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawing includes changes to FIG. 2. Sheet 1, which includes FIG. 2, replaces the original sheet including FIG. 2.

REMARKS/ARGUMENTS

Favorable reconsideration of this Application, as presently amended and in light of the following discussion, is respectfully requested.

This Amendment is in response to the Office Action mailed on March 28, 2005. Claims 1-10 are pending in the Application and Claims 1-6 stand rejected. Claims 1 and 4 are amended and new Claims 7-10 are added by the present Amendment.

In the outstanding Office Action, Claims 1-3 were rejected under 35 U.S.C. § 102(e) as being anticipated by Otaguro (U.S. Patent Publication No. 2002/0064439 A1) and Claims 4-6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Otaguro in view of Tokunaga (U.S. Patent No. 6,473,993).

In this Amendment, Applicants have submitted a replacement FIG. 2, adding a lead line and reference number 3a identifying the protrusions or projections. Applicants respectfully submit that no new matter has been added by the replacement drawing submitted. Entry of the replacement for FIG. 2 is respectfully requested.

As to the anticipation rejection, Applicants respectfully submit that presently amended Claims 1 is not anticipated by Otaguro because each and every element as set forth in that claim is not found, either expressly or inherently described, in the cited reference. In an anticipation rejection, the identical invention must be shown in as complete detail as is contained in the claim.<sup>1</sup>

According to a feature of the invention as set forth in Claim 1, a wafer processing apparatus is recited, comprising, among other features, a chamber with a first opening portion and a door that substantially closes the first opening portion. The recited door has a projection which partially protrudes from its outer shape, and, when the door is positioned to

---

<sup>1</sup> See MPEP 2131: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," (Citations omitted) (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

substantially close the first opening portion, only the projection contacts a peripheral portion of the first opening portion. Non-limiting support for the subject matter amended to Claim 1 is self-evident from Applicants' Specification, e.g., FIG. 2.

As disclosed in the Specification, in order to keep wafer processing apparatuses clean, the pressure within a mini-environment is maintained higher than an external ambient pressure by a predetermined pressure difference. As such, when a door is opened or closed during the transferring of a wafer, a gas flow from the interior of the mini-environment to the exterior is created, generating flow turbulence as the air flow passes over the door, thereby stirring up dust in the exterior that will cause contamination of the wafers inside the clean box. Applicants' advantageous projections are designed to eliminate, or significantly reduce, the above-described flow turbulence.

Otaguro discloses a FOUP 10 containing a plurality of semiconductor wafers 14, a dock plate 31 for carrying and positioning the FOUP 10, a dock moving mechanism 30, a port door 23, and a port plate 21 including an opening portion 22, being closed by the port door 23. Otaguro does not teach or disclose a door 23 with a projection that partially protrudes from the door's outer shape. Although the door 23 in Otaguro has a stepped portion that is inserted into the opening portion 22, that door, as clearly shown in FIG. 2, does not compose any projections as recited in Claim 1. To the contrary, the projection defined in Claim 1 partially protrudes from the outer shape of the door as shown as a non-limiting example in FIG. 2 in this application. By forming the projection as defined in Claim 1, an air flow passing through a communication path from the interior to the exterior of the chamber, and the turbulence associated therewith, can be suppressed. Otaguro fails to teach or suggest such a projection and arrangement and its resulting effect.

Applicants respectfully submit that Claim 1 is not anticipated by Otaguro. This cited prior art reference does not disclose the recited door projection as explained. Claims 2 and 3

should be allowed, among other reasons, as depending either directly or indirectly from Claim 1, which should be allowed as just explained. In addition, Claims 2 and 3 are further considered allowable as they recite other features of the invention that are not disclosed, taught, or suggested by the applied reference when those features are considered within the context of the subject matter recited in independent Claim 1.

As to Claim 2, as shown in FIG. 2 of Otaguro, no projections partially protruding from the outer shape of door 23 are located in the corners of the door 23. As to Claim 3, no aperture is formed through which the interior and exterior of the disclosed chamber communicate.

Therefore, Applicants respectfully request that the anticipation of Claims 1-3 under 35 U.S.C. §102(e) be withdrawn.

As to the obviousness rejection, Applicants respectfully submit that Otaguro and Tokunaga, neither individually nor in any combination, support a *prima facie* case of obviousness of the invention recited in Claim 4. This is so because, even when combined, these references do not teach or suggest all the claimed features. The door recited in Claim 4 includes a projection similar to the one recited in claim 1.

The outstanding Office Action acknowledges that Otaguro fails to teach, disclose, or suggest a clean environment as a mini-environment. Tokunaga has been cited as allegedly teaching the acknowledged features absent from Otaguro.

However, Tokunaga does not remedy the above-noted deficiencies with regard to Otaguro. In particular, Applicants note that Tokunaga fails to teach a door with a projection as explained. Accordingly, Otaguro and Tokunaga, neither individually nor in any combination, make obvious the invention recited in Claim 4. Claims 5 and 6 should be allowed, among other reasons, as depending either directly or indirectly from Claim 4, which should be allowed as just explained.

In addition, Claims 5 and 6 are further considered allowable on their own merit as explained above with reference to Claims 2 and 3. For the foregoing remarks, Applicants respectfully request withdrawal of the rejection of Claims 4-6 under 35 U.S.C. § 103(a).

Finally, Applicants have submitted new Claims 7-10, which find non-limiting support on the subject matter originally recited in the claims and illustrated in Applicants' figures. Therefore, new Claims 7-10 are not believed to raise a question of new matter.<sup>2</sup>

Claim 7 recites a wafer processing apparatus comprising a door with a projection made into a shape so as to suppress an influence on air flow passing through a communication path from the interior to the exterior of the chamber.

Claim 8 recites wafer processing apparatus, comprising a door having a plurality of protrusions extending from an outermost perimeter thereof, the plurality of protrusions being shaped to reduce gas flow turbulence generated by opening and closing the door, wherein, when the door is positioned to substantially close the window opening, only the plurality of projections contacts a surface of the wall portion adjacent to the window opening. New claims 9 and 10 depend from new Claim 8. Applicants respectfully submit that, based at least on the above-summarized remarks, new Claims 7-10 should be allowed over Otaguro and Tokunaga.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-10 is earnestly solicited.

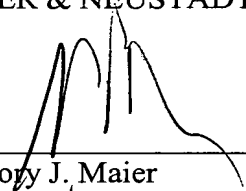
---

<sup>2</sup> See MPEP 2163.06 stating that "information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter."

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representatives at the below listed telephone number.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



---

Gregory J. Maier  
Attorney of Record  
Registration No. 25,599

Mardson Q. McQuay, Ph.D.  
Registration No. 52,020

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 06/04)

I:\ATTY\MQM\24's\245156US\245156US-AM.DOC

Robert T. Pous  
Registration No. 29,099